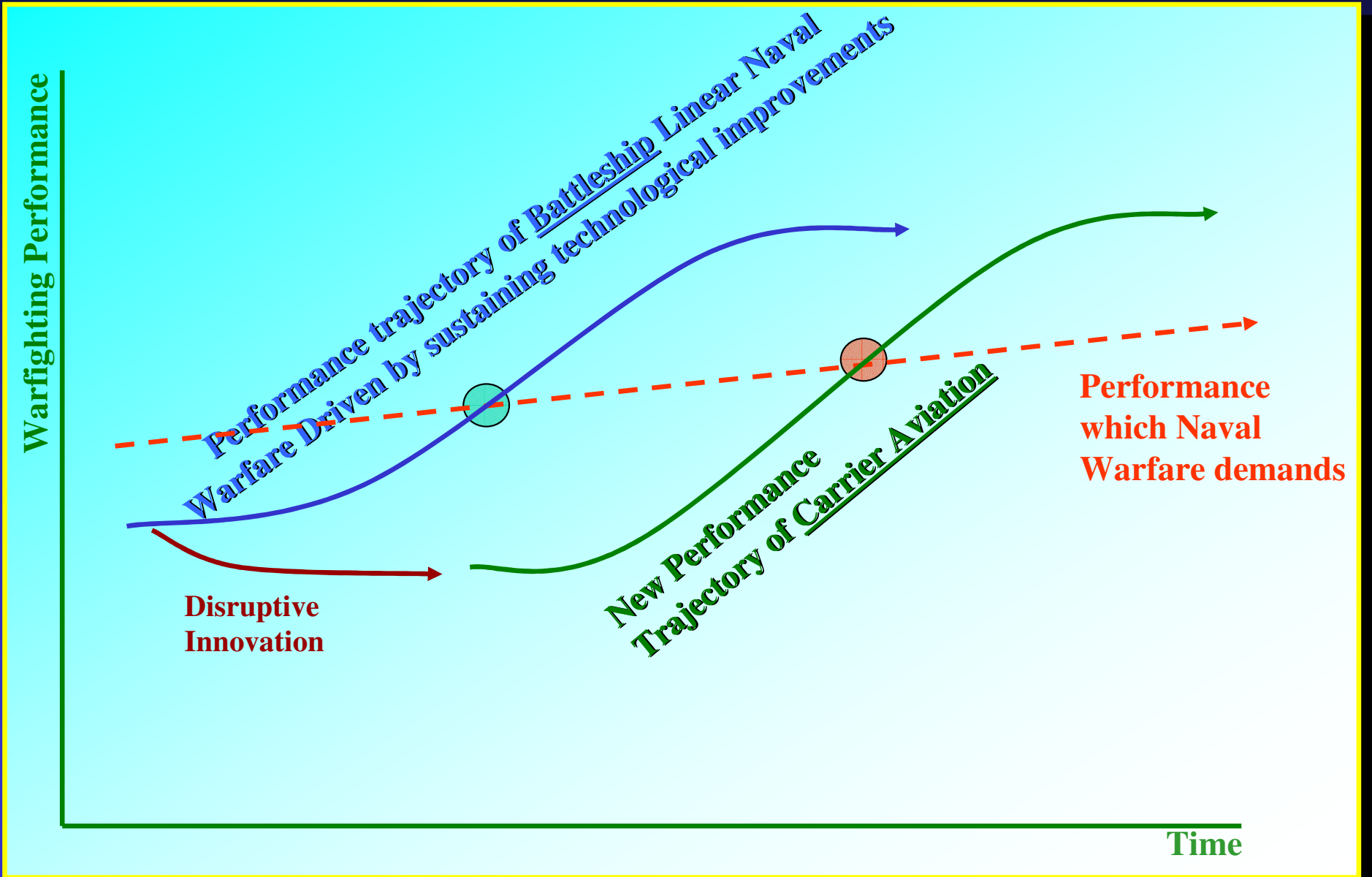
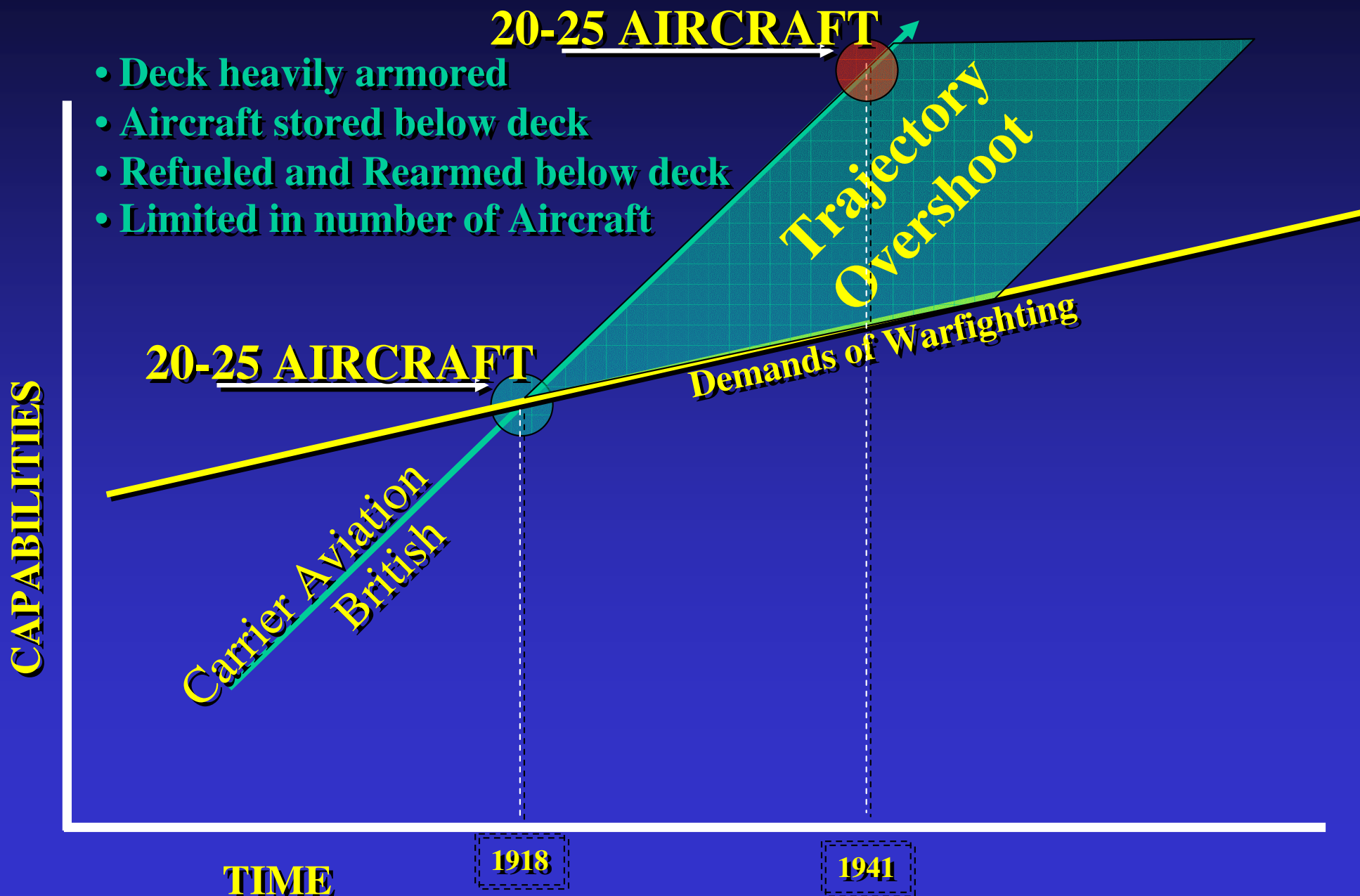


Sustaining vs. Disruptive Innovation

Battleship vs. Carrier Aviation



British Carrier Aviation



Carrier Aviation vs Carrier Warfare

CAPABILITIES

- Planes stored below deck
- Refueled and Rearmed below deck
- Deck heavily armored
- Limited in number of Aircraft

20-25 AIRCRAFT

Trajectory
Overshoot

20-25 AIRCRAFT

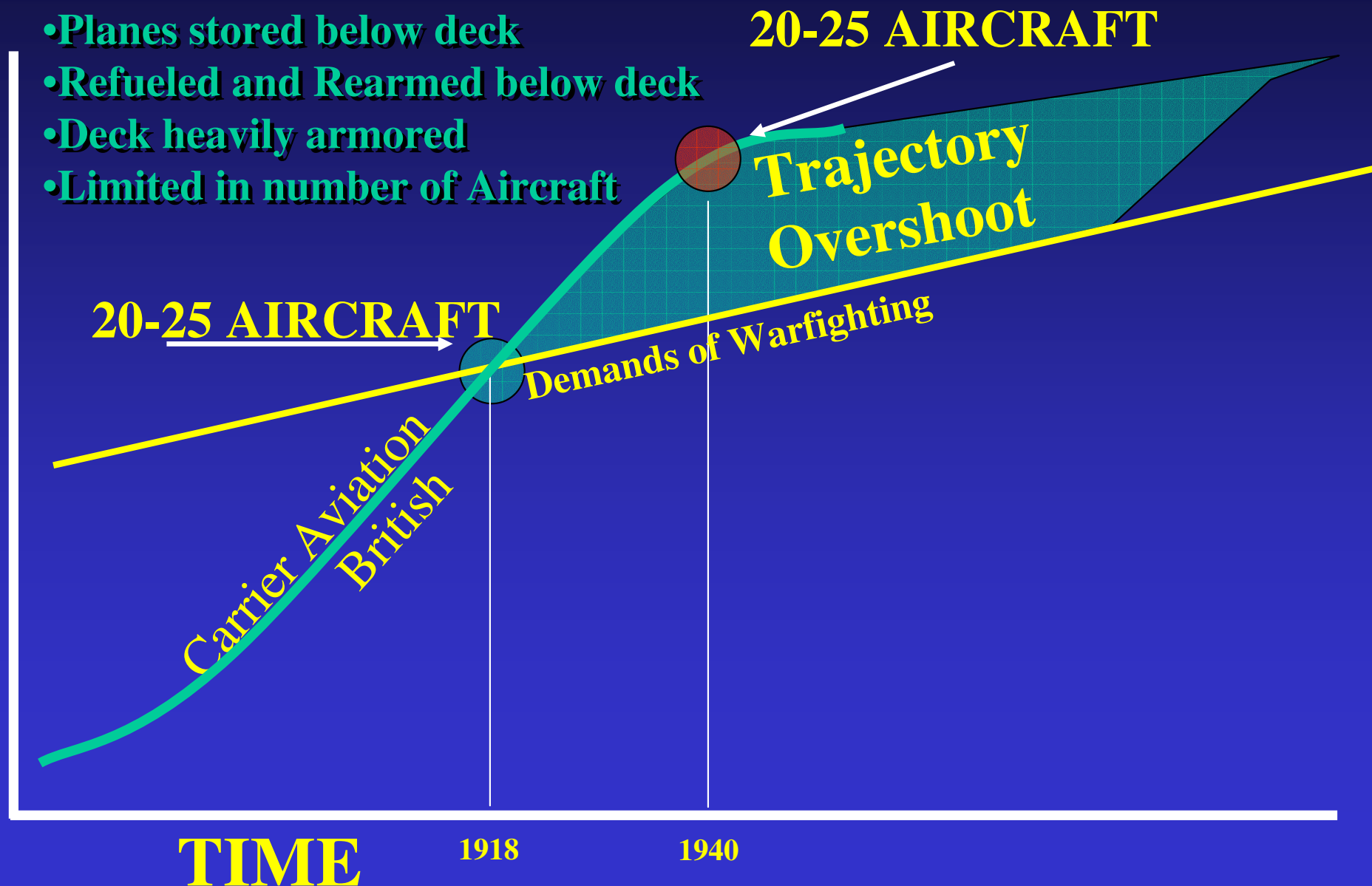
Demands of Warfighting

Carrier Aviation
British

TIME

1918

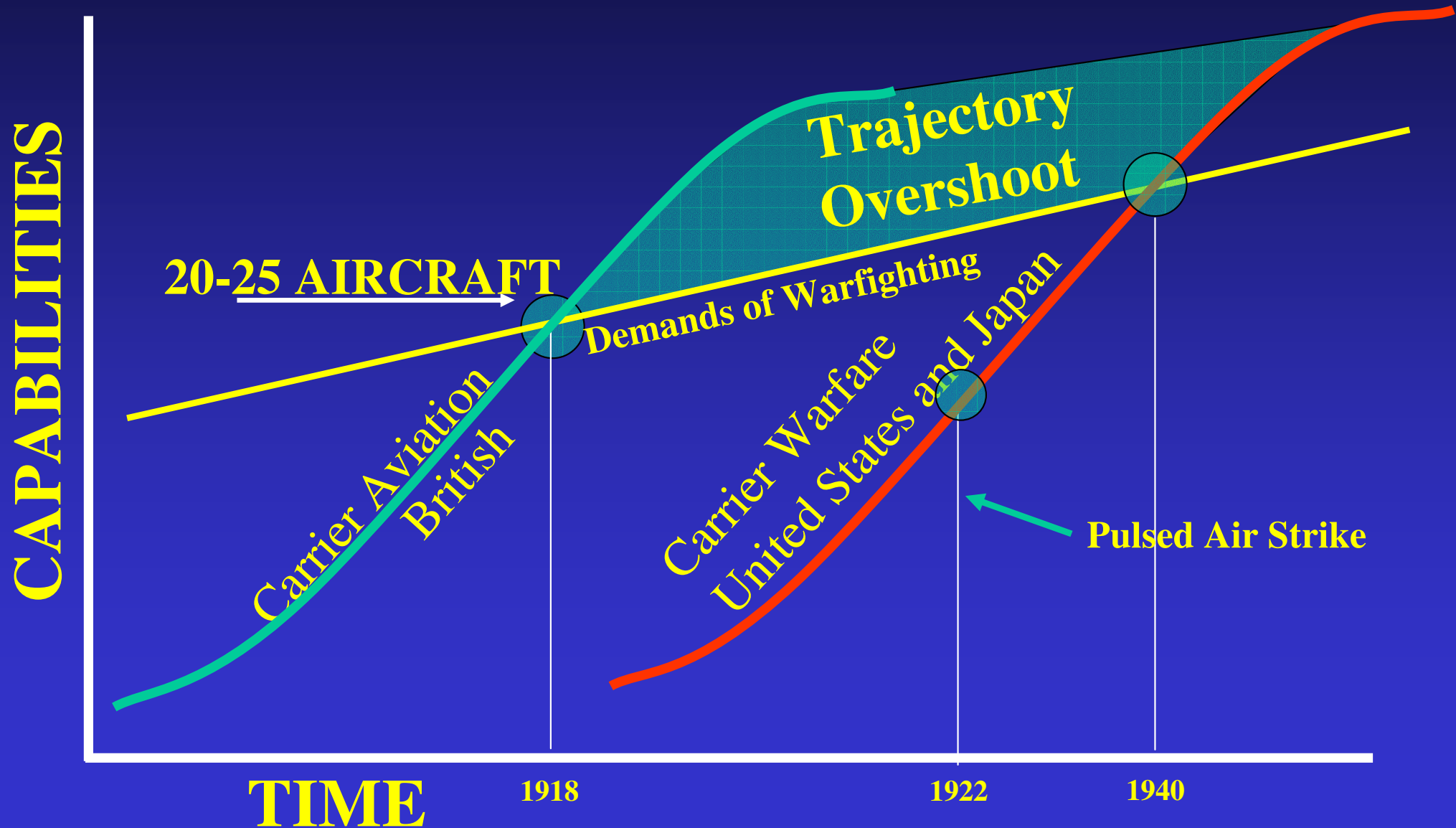
1940



Critical Elements of the Strike Carrier Concept

- Pulsed Strike Power
 - Conceived at the NWC and then experimented by the Fleet
 - The need to increase the number of aircraft drove Captain Reeves to change operations on the LANGLEY

Carrier Aviation vs Carrier Warfare



Carrier Aviation vs Carrier Warfare

What were the enabling mechanisms?

CAPABILITIES

TIME

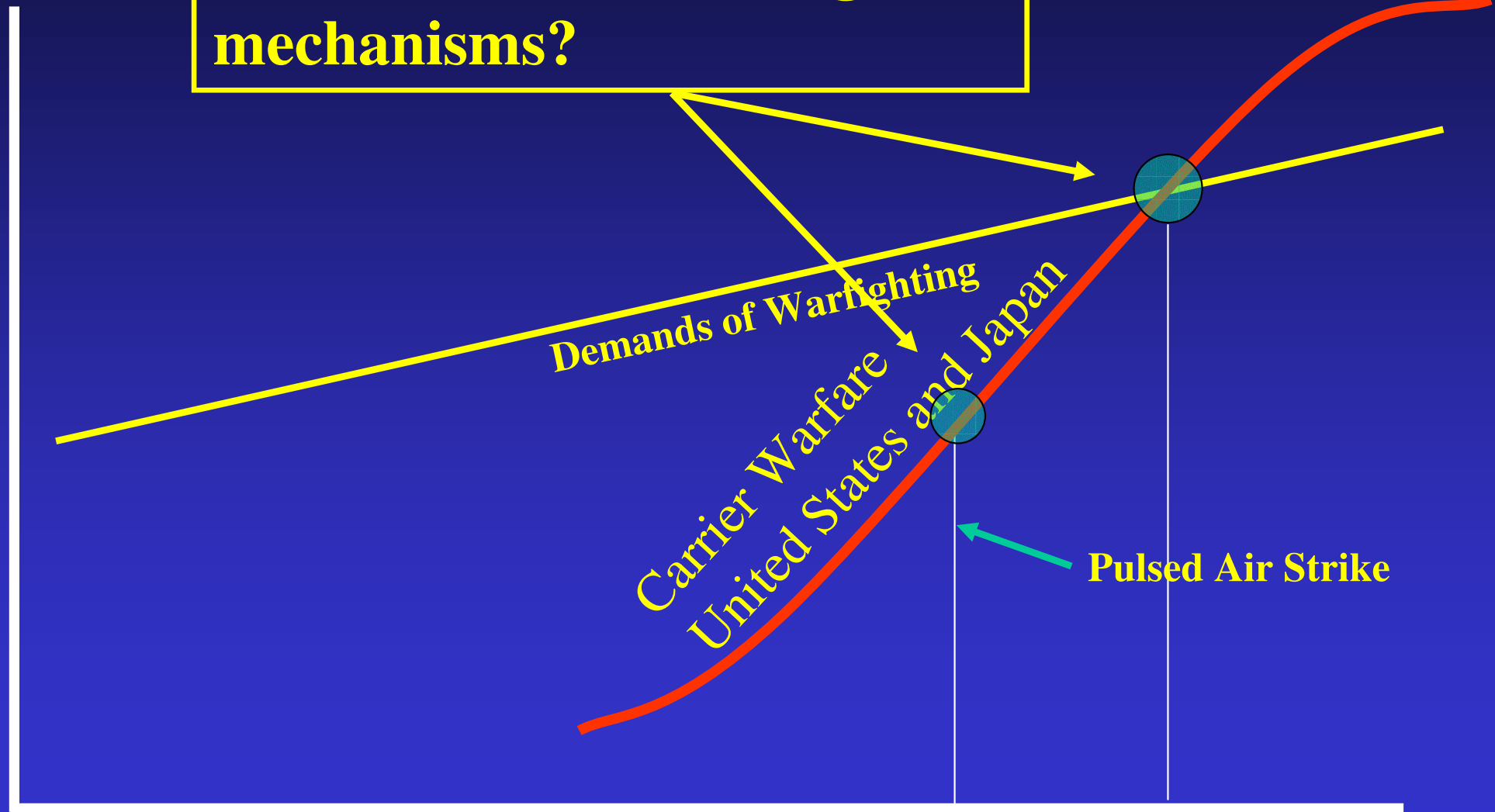
Demands of Warfighting

Carrier Warfare
United States and Japan

Pulsed Air Strike

1922

1940



Critical Elements Enabling the Strike Carrier Concept

- Deck Parking

- Saved considerable time by not sending each aircraft below as it landed
 - Deck Refueling
 - Deck Rearming

- Crash Barriers

- Protected those aircraft parked forward of the landing area.

Carrier Aviation vs Carrier Warfare

CAPABILITIES

- Planes stored below deck
- Refueled and Rearmed below deck
- Deck heavily armored
- Limited in number of Aircraft

20-25 AIRCRAFT

Carrier Aviation
British

1918

Demands of Warfighting

Carrier Warfare
United States and Japan

1922

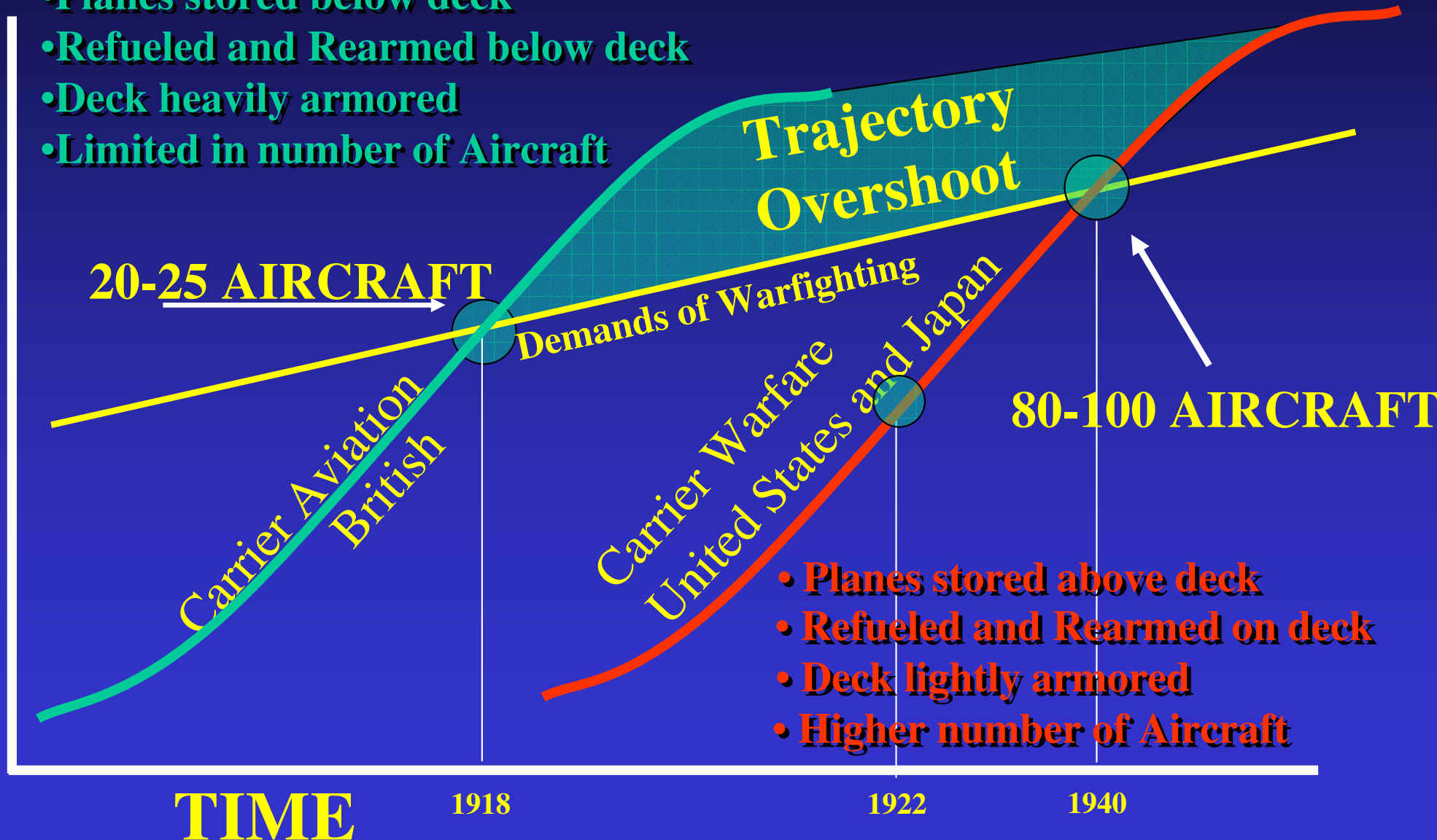
1940

80-100 AIRCRAFT

Trajectory
Overshoot

- Planes stored above deck
- Refueled and Rearmed on deck
- Deck lightly armored
- Higher number of Aircraft

TIME



Championing Disruptive Innovation

Carrier Warfare

Disruptive Factors:

- Pulsed Air
- Deck Parking
- Crash Barrier
- British Armored Carrier (constraint)

Disruptive Warfare

Equivalents of:

- Pulsed Air?
- Deck Parking?
- Crash Barrier?
- British Armored Carrier (constraint)?